



# Department of Environmental Management

## Spotlight on Environmental Protection

### Did you know?

- The typical landscaper uses 4.63 gallons of water per square foot per year to irrigate turf.
- During the outdoor sports seasons, the average turf sports field receives 1 to 1.5 inches of water per week.
- Approximately 3 to 4 pounds of nitrogen, 2 pounds of phosphate, and 2 pounds of potash per 1,000 sq ft per season are used for sports greens.

### Program Contact

Ann Battersby  
Senior Environmental Scientist

401-222-4700  
ann.battersby@dem.ri.gov

## Green Hospitality: Turf Maintenance Industry

Recently, the DEM Office of Customer & Technical Assistance (OCTA) has been awarded a 61,000 two year EPA grant to conduct research into Pollution Prevention (P2) within the Turf Maintenance Industry. This target industry consists of golf courses, cemeteries, sports greens, turf farmers, and residential and commercial maintained turf.

Increasingly more, land is developed and turf takes the place of native biodiverse land cover.



Stakeholders within

the turf industry view turf as essential to landscape aesthetics contrary to those in the environmental field who view turf as an ecologically poor monoculture. Turf grass not only covers a larger extent of land than any other irrigated crop in the U.S., but is expected to expand in coming decades. Ornamental turf grass requires more watering than native grass species. The target of this grant program is to promote and implement P2 within the above referenced industry sectors.

Currently, OCTA runs a successful program to promote P2 in the turf management sector through the "RIDEM Green Golf Course Certification Program". This program scores golf courses on their environmental performance through a checklist. Performance standards include toxics source reduction, fertilizer reductions, energy efficiency, and chemical safety. Golf courses are awarded a certification for attaining a certain score. Completion of checklists are followed by inspections to measure performance. Golf courses are then required to increase that score within two years and increase their use of P2 techniques.



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### RIDEM Pollution Prevention (P2) Program

#### Goals

- reduce the use of toxics (pesticides) and fertilizers
- conserve resources through reduction in water consumption for irrigation.

#### Implementation

- RIDEM provides technical assistance to businesses for use of P2 techniques.
- RIDEM recognizes businesses who practice P2 through a green certification program. Businesses can use this certification as a marketing tool.



Goddard Memorial Park Golf Course Superintendent Andrew McLachlan celebrates acceptance into the Green Golf Course Program with RIDEM's Ann Battersby .

The goal of the grant program is to expand the existing program into the other sectors of turf management. These sectors are quite large compared to the 70 golf courses in the state. For sports greens, it is estimated that out of the 39 municipalities in RI each municipality has two sports fields. In all of the cities and towns in RI there are a total of 69 high schools with their own turf fields and 12 colleges with numerous turf fields. There are approximately 12 turf farmers in RI and 75 registered cemeteries and 400 registered landscaping companies.

Successful implementation of the proposed program will allow RIDEM to institutionalize the data gathered for future policies on water quality. Currently the RIDEM does not have any established guidelines or policies to adequately control the use of active phosphate fertilizers. The RIDEM Office of Water Resources (OWR) is required to complete Total Maximum Daily Loading (TMDL) analysis on impaired waterbodies in the state. By obtaining data on the rate of fertilizer applications within the grant program, policies and guidelines can be developed by RIDEM OCTA and OWR to control non point source loading to the state's watersheds.

The grant program additionally targets reduction in energy use and promotion of stormwater management best management practices (BMPs) following closely with RIDEM's Stormwater Design Standards and Installation Manual and EPA's program "Soak up the Rain" (more information found at <http://www.epa.gov/region1/soakuptherain/>) The program also aims to develop web based training modules for industry stakeholders in implementing various P2 techniques.